



Employment and Unemployment in Russia from Microeconomic Perspective

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Working Paper

EMPLOYMENT AND UNEMPLOYMENT IN RUSSIA FROM A MICROECONOMIC PERSPECTIVE

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WP-94-091
September 1994



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Foreword

The Economic Transition and Integration (ETI) Project at the International Institute for Applied Systems Analysis (IIASA) has built on the institute's tradition of promoting collaborative research between East and West. The ETI Project's proven ability in dealing with issues pertaining to the transformation from central planning to market economies has been valuable for policy-makers and scientists alike. As a result, the government of the Russian Federation turned in 1992 to the ETI Project to organize a series of seminars and provide reports on topics of concern to the government. The Ford Foundation and Pew Charitable Trusts have generously provided financial support for the seminar series.

This report summarizes the contribution of participants at a seminar held at IIASA on 23–25 June 1994 "Employment and Unemployment in Russia from a Microeconomic Perspective." This workshop was an attempt to deepen the understanding of and unveil some of the mysteries in Russian employment and unemployment. Topics ranged from the demographics of employment to the lack of unemployment despite severe output declines, and from in-depth studies of certain sectors and industries to comparisons with some Central European employment circumstances. More specifically, seminar participants presented papers and had discussions in five research areas: recent developments in employment and unemployment, adjustments in the use of labor, case studies, the experience of East European countries in unemployment concentrated to regions and sectors, and finally future prospects of employment.

This wide array of paper presentations and discussions was enhanced by the willingness of workshop participants from Russia, Central and Eastern Europe, and the West to share their experiences and engage each other with provocative thoughts. Through this iterative process, the workshop was successful in shedding light on the empirical facts of employment and unemployment, better understand some mysteries surrounding facets of this data, and in the end make some valuable speculation about the future of employment and unemployment in Russia.

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EMPLOYMENT AND UNEMPLOYMENT IN RUSSIA FROM A MICROECONOMIC PERSPECTIVE

*Michael Busse**

1 Introduction

Between 23–25 June 1994, a workshop took place on “Employment and Unemployment in Russia from a Microeconomic Perspective” at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria. This workshop was organized by members of the Economic Transition and Integration (ETI) Project at IIASA. The workshop had more than 20 participants from diverse backgrounds including the Harvard Business School, the London School of Economics, the International Center for Research into Economic Transformation (ICRET), the Institute of World Economy and International Relations (IMEMO) both in Moscow, the Federal Employment Services of Russia, as well as other important figures from the policy and academic world from both East and West. The workshop was made possible by generous funding from the Ford Foundation and the Pew Charitable Trusts.

With the economic transformation in Russia, rapid changes in employment and the growing relevance of both hidden and real unemployment warrant analysis. This workshop was an attempt to understand some of the transformations that have occurred in Russian employment, unwrap some of the mysteries in the Russian employment market, and discuss policies most advantageous to Russia’s future. There were several more specific questions which focused the general themes of the seminar. First, why has Russian employment remained so low? This workshop analyzed in great detail possible mechanisms for the low unemployment levels including the excess wages tax, incentives from the Federal Employment Services, firm level subsidies, Russian wage flexibility, old line management technique or mismeasurement. Each possibility was carefully assessed and weighed relative to the other factors. A second set of questions involved how much change has actually occurred regarding Russian employment: How many people are doing different work? Are new private firms using different employment policies? A third question weighed how fast changes be made in the future? Will moving slower ease the pain of transition? Will it allow entrenched powers to redevelop stopping the transition altogether? Can high unemployment, possible from more severe changes, be politically sustainable? How long should firms be the providers of most individual social benefits? How much should active labor market policies be valued into the future?

To make in-depth insights into this array of topics, workshop attendees presented the results of sophisticated statistical analyses of labor market facets, case studies of certain regions, industries, or policies, and also the results of surveys at the firm and household

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levels. Presentations ranging from a case study of the Vorkuta coal fields to Russian brain drain, and to a detailed study of the excess wages tax were used to make insights into employment and unemployment in Russia. Through this level of disaggregation, the endeavor was to understand the micro in order to then reconcile the findings back at a macro level. To enhance the understanding in Russia, examples and case studies from the Czech Republic, Slovakia, and Bulgaria were also presented.

This report uses an expository technique for presentation in order to give a brief, though objective and accurate report of the information, debates, and personal experiences presented at the workshop. The organizers of the workshop wish to thank the participants for their valuable contributions. A full list of names and affiliations is given in the appendix, as well as the program for this seminar.

2 Recent Developments in Employment and Unemployment

2.1 History¹

Russians only know of unemployment from their distant past. The Soviet Constitution not only guaranteed employment, but there was indeed a criminal code for not working. With this as background, it is understandable that the Soviet Union had extremely high percentages of the population in employment with rates of 96–98% for men aged 25–49 and between 90% and 96% for similarly aged females. There was very little opportunity for part-time work so even amongst working females 99% of work was full-time. The mandatory employment policies led to fairly low wages and a great deal of surplus labor in enterprises. A major change in employment legislation came in April 1991 legalizing unemployment. Thereafter, in August 1991, the Russian Employment Centers began to measure unemployment, give benefits and retrain the unemployed.

2.2 Employment Amounts and Flows

The total number of employed in Russia is now falling. Though, there is wide dispute over how employment should best be measured. Official unemployment considers those without a job and over 16 and pre-retirement who have registered by an employment office. Under this unemployment definition, there were 780,000 unemployed in December 1993. However, most of the workshop participants agreed that the real unemployment amounts are at least 3–4 times higher than the official numbers. One estimate was that unemployment at the end of 1993 was actually 3.8 million. One discussant mentioned that the International Labor Organization estimates that only 25% of the unemployed are registered in Russia. He also stressed that unemployment has become a fuzzy issue with the onset of multiple jobs, delayed wage payments, reduced hours, and unpaid leave. Some of these changes work to make the real unemployment lower than measured, while others have the opposite effect. Another problem with relying on this self-reporting measurement technique is that it also captures changes in incentives to register, such as benefit amounts, and hence will not necessarily correspond with actual unemployment levels.

As mentioned above, many new forms of employment including part-time, informal sector employment, self-employment, have developed in Russia. There were 4 million

¹The following section relies substantially on Lioudmila Nemova's paper, "Pattern of Unemployment in Russia".

workers who were either temporarily laid off or had experienced reduced working hours in 1993, and already there have been 4.5 million such cases in the first half of 1994. There remains a substantial number of these hidden job losers, not to mention a large surplus of labor across many enterprises. On this ground it can be predicted that this hidden unemployment will soon appear in the statistics as it did in Central Europe. One participant suggested that unemployment will soon reach levels over 7 million or 10% of the working population. Contrasting with this data, one attendee suggested that there may also be individuals now who simply choose not to work; this will reduce the total employment voluntarily. At discussion's end most workshop attendees were quite uncertain as to how long the low unemployment can continue.

The flows between unemployment and employment as well as between the public and private sector in Russia are remarkable. One workshop attendee presented what he thought to be a typical employment model for a transition economy. The model had unemployment created by shrinkage of the old state sector and new employment developing in the private sector. The key to unemployment was the difference in the rates of release and then hire in the sectors. The Russian labor market has deviated from this model in several ways. First, movement to the new, private sector has been directly from the public sector, often never moving through unemployment. Second, there has been substantial movement of workers into the public sector from unemployment. In general, the rate of flows to and from unemployment has been quite remarkable. There was substantial agreement that long-term unemployment is a great danger under a labor market with substantial, direct movement from the public to private sector.

2.3 Demographics of Employment

After establishing the aggregate employment data and the debate surrounding the numbers, sector wide and demographic data were examined. The number of employees in non-public firms has risen drastically from 3% of employment in 1989 to 33% in 1992, 41% in 1993, and is estimated to be over 50% of employment in 1994. Female unemployment has been substantially higher than male; women comprised 75% of the unemployment by mid-1992 and still 72% in the first quarter of 1993. Higher female unemployment has at least two explanations. First, women have been the first to lose their jobs with reductions in over-staffing; there is certainly not equal treatment for men and women, as guaranteed under the constitution. Second, the inflexibility of the old system forced women to be employed full-time. Now they are more likely to accept part-time work with greatly reduced wages or no work. The time cost of their home life is greater.

The age distribution of the unemployed is heavily weighted toward the young. Those between 16 and 22 account for 18.5% of all unemployment, while their share in the economically active population is only 13%. Although higher than for the rest of society, it was stressed that in Western countries, it is not uncommon for the percent unemployed amongst the young to more than double their proportion in the labor force. For example, the 15-24 year olds in Canada are 37% of the unemployed, but only 17.5% of the total labor force. The education structure of early reform unemployment looked quite unusual with substantial high education unemployment. This arose due to the effects of de-bureaucratization and de-militarization. Each sector is releasing rather highly educated individuals. So in the beginning of 1993, 45% of all unemployed could be classified as higher education (some post-secondary), while only 42% of the employed have this classification. This effect is more intense in Moscow, where university educated accounted for a full 55% of the unemployment. However, it is expected that with privatization

unemployment will move to be more normal, a pattern that occurred in Central Europe. A regional analysis shows that the central regions of Russia such as Vladimirskaya, Ivanovskaya, Kostromskaya, and Yaroslavl'skaya with high industry levels have the highest unemployment levels with two to four times the average. In other regions, Moscow shows very little unemployment, while the Urals, the North-Western area including St. Petersburg, the Volga-Vyatsky and Northern Caucasus have higher than average levels.

The branch structure of employment remains out of line with the Western economies. As of 1988, 20% of workers were rural, very few were in trade, and only 0.5% were in financial services. The level in financial services contrasts greatly with Western cases where financial services range from 4% to 11% of employment.

Measurement problems were stressed throughout the first afternoon of the workshop. There was agreement that one must be cautious when using official data for Russia or the former Soviet Union. However, there was heated disagreement over whether this workshop and even more generally whether it was worthwhile to be constantly debating the quality of data. One view was that models, theories, and possible policy implications should be debated and that less time should be allotted to the endless debate on data quality. The contrasting view was that the discussion of the quality of statistics must continue in order to have gradual improvements. One attendee underscored that it took the West a long time to develop reasonably accurate labor statistics.

The initial section concluded with a rather lively debate on the output employment gap. Employment appears to have dropped only slightly relative to Russian output reductions. But the size of this disparity was disputed. It was disputed on two grounds: that the unemployment numbers are higher than officially measured, while the drops in output are less than officially measured. The output argument was based on unrealistically high Russian output measures under the last years of communism. Other arguments were made to explain the low unemployment including socialized managers, the excess wages tax, wage flexibility, flexible work arrangements, as well as others.² Regardless of the magnitude of this disparity, its heterogeneity across industry sectors is large. Some sectors have had great employment drops, while other sectors such as energy and insurance have actually experienced employment increases. In the end, there was agreement that better data should be compiled at the micro-level, especially for a good labor force survey to sort out some of the employment puzzles.

2.4 Role of the Federal Employment Services Center³

The Federal Employment Services in Russia has at least two aims: to assist the unemployed as well as to help the employed whose jobs are likely to disappear. The longer term goal is to try to limit the long-run unemployment. The Center now spends 28% of its budget on active labor market policies and 13% on job subsidies. The funding comes from places such as the World Bank and Britain and the size of the Center has been increasing rapidly to meet the needs of growing unemployment in Russia. For example, the national staff will rise from 32,000 to 50,000 by year's end. There has been a problem in keeping staff from taking their training and leaving for the private sector.

The method to make people avoid long-run unemployment is to have a generous benefit system for short-run unemployment with declining benefits thereafter. In this way, people would not have an incentive to remain unemployed for the long-run, but would still have

²Many of these concepts will be discussed in greater detail in later sections of this report.

³Much of this section can be attributed to Molly Meacher's talk and paper, "Options for Employment Policies in Russia".

the short-run means to find work. Russia now has an approximation of this system initially giving 70% of salary to unemployed, then 45%, and after 12 months very little. With the aim of avoiding long-run unemployment, the Center gives financial support to keep unpaid leave workers. The purpose is to allow a worker breathing space or a grace period by retaining former employment while looking for alternative employment. The idea is that it is easier to find a job while you still have one. This policy was rather controversial at the seminar. Many believed it would do more to allow the *status quo* to be retained than it would help workers. Whether positive or not, there was consensus that the Center could not afford these subsidies in the face of unemployment increases. There was also a worry that if inflation comes down that quickly, many of the benefit policies would become unaffordable.

Russia still has no special unemployment offices or norms for special groups such as the young or the disabled. The conclusion from the Center's standpoint is that they have a clear policy framework, but that practical issues such as space and money are and will be their stumbling blocks. The seminar viewed the Center as positive for the short-run interests of worker assistance. But seminar attendees were in disagreement over the value of certain Center actions for long-term success for the Russian laborers.

There were several other employment concerns discussed. Many have no commercial sector training and too much training in Marx. It was ascertained, for instance, that for the employment services to work, there must be "New Deal like" infrastructure and transport type of projects. These public works could greatly help to reduce the potentially coming long-run unemployment. It was also stated that while relocation of workers in Russia is needed, policies must be created under the realization that movement is a sensitive issue in Russia due to the Soviet history of forced worker movements.

3 Adjustment in the Use of Labor

3.1 Alternatives to Full-Time Employment—Incentives, Advantages, Disadvantages

This conference session attempted to explain why unemployment has remained low despite Russia's large output drops. Specifically, it examined specific mechanisms and forces which have kept the unemployment level low. There was particular detail in analysis given to explaining the excess wages tax, as some seminar attendees found it the most powerful factor driving the high employment retention in Russia. For each mechanism, their possible advantages and disadvantages were debated. The session concluded with some general thoughts on Russian employment and what should be done looking towards the future.

3.2 The Excess Wages Tax⁴

The slow release of workers by old enterprises, whether public or private, has been an important explanation for low unemployment. The excess wages tax may be one of the key factors giving managers incentive to retain old workers. This tax was part of the "Tax on Profits" which was introduced two days after the end of the Soviet Union and but a few days before the price liberalization of 1 January 1992. The excess wages tax

⁴Much of this section relies on Ian Roxburgh and Judith Shapiro's discussion and paper, "Alternatives to Full-Time Employment—Incentives, Advantages and Disadvantages".

was originally a 32% tax per employee on the excess of the average wage that exceeded four times the minimum wage and then 50% on excess above 8 times the minimum wage. Later, the tax level rose to 35% if the average wage exceeded six times the minimum wage.

The designed purpose of this tax was to hold down wages and act partly as an inflation hedge while Russia moved through price liberalization. To illustrate the potential power of this tax, an example of a two person firm with one worker earning $11 \times M$ (M = minimum) and a second making $7 \times M$ will be used. As the average wage is $9M$, the firm must pay excess wages taxes of 35% on $3M$ ($9M$ is three higher than $6M$) for each worker. If the firm decides to make one of the workers redundant, then the excess wage tax will be $35\% \times 5M$, as $11M$ is five over the tax threshold of $6M$. It would actually have been cheaper for the firm to retain the second worker at $1 \times M$ than to release the worker as the excess wage tax would then be 0 and the average wage would be $(11M + 1M)/2$ or $6M$. Redundancy costs of 2–3 months non-indexed wages would tip the employment decision further in the direction of retention. This example exemplifies the potential power of the excess wages tax. There were others at the seminar who disagreed with the initial assessment that the excess wages tax had very much effect on employment decisions. What can be learned from this example is that both the rate and the threshold of the tax can and should be moved to reach levels or rates of redundancy which would in some way be optimal for Russia's current economy.

The original purpose of the tax to hold down wages and curb inflation has been a failure. However, the tax has been an important and stable revenues source for the government. Firms have also been able to retain key, skilled employees through compensating their high wages with many close to the minimum wage. And most noteworthy, the tax has been extraordinarily successful in causing labor retention. Firms have chosen to keep numerous workers employed at lower wages in order to bring down an enterprise's average wage. The seminar had no consensus on whether this tax has been an advantage or disadvantage for Russia. Some suggested that it has given workers the opportunity to retain their old jobs while either looking or retraining for new work. Firms were not forced to make the long-run labor decisions either necessary for success under capitalism. At the political level, the tax has helped to keep social peace and at least a measure of stability through high employment.

There are other important mechanisms that also have led to labor retention. The option of unpaid leave has been very instrumental in allowing firms to retain workers. In one survey, a full 41% of managers suggested that it was their first way to save on labor costs. Another important mechanism beyond lowering wages has been part-time work. But with wages low already, this kind of work will for many not allow for a sustainable future. Early retirement in order to reduce unemployment often has been shown as the most popular option in surveys. One attendee found this popularity as quite unfortunate as making use of any extensive early retirement programs will quickly become a fiscal nightmare. With the shrinking economy and aging population, this option can not long be afforded. Likewise, reducing the number of women in the work force is only feasible in more prosperous societies.

Another view was that the key issue in long-run employment is actually what the future of the current enterprises in Russia will be. It might be okay to keep people where they are employed if they could do something different at work. The problem with the incentives from the excess wages tax is that it gives firms a subsidy and allows them to follow the *status quo*. This old system allows political coalitions to again setup and entrench Russia in the past.

3.3 Employment and Unemployment in Russian Households: A Multidimensional Approach⁵

The next session provided the results of a survey on employment, unemployment, and sources of income in Russian households. The survey was an attempt at applying normal social science in abnormal conditions; an attempt to turn anecdotes into data. With this as the grounding philosophy, a program of surveys at the household level across 15 countries with verifiable data was collected. It was done at the household rather than at the firm because the household was seen as the best unit of analysis to understand the effects of economic changes on individuals. The questions ranged from modes of work, to income, to ways of coping with lowered income, and others.

The section below will highlight some of the survey's results. The median Russian household has two persons in employment, and a full one-third have three or more in employment. The median Russian household relies on four different types of economic activities, where activities include growing food, work on one's house, monetized unrecorded activities, as well as recorded activities. Only 22% of households rely solely on official employment for their well being. Even 72% of the unemployed still live in households with one or more jobs. Further, for those unemployed, their households continued to average three economic activities. The conclusion arrived upon was that sources of income or at least economic activity have become quite dispersed in Russia. This implies that one must assess with great caution the costs of lost official employment.

The next step in the survey was an attempt to categorize households into one of four categories: defensive, enterprising, vulnerable, or marginal. The aim of this section was to understand better both the activities, the risks, and the size of different Russian household types. Defensive households are those that depend on official jobs plus non-monetized income. They summed to 43% of all households and were more heavily represented in the households of employed individuals. Enterprising households were those depending on unofficial cash earnings in addition to an official job. They were 23% of the total, and were actually more heavily represented in the households of unemployed individuals. Somewhat surprisingly, those that lost their jobs were more likely to be enterprising. It was suggested at the seminar that when you lose your money income, you gain time for other activities that can actually bring greater benefit. The third category was vulnerable households, those that depend solely on official job, pension, and benefits. They were 22% of the total. It was stressed that although they are vulnerable, they are not necessarily poor. The final category consisting of 12% of households were the marginal group who were not primarily dependent on money economies.

There are some fascinating and somewhat paradoxical findings about the loss of income versus ability to survive during the past year. 75% of questioned households have not lost income due to unemployment in the past year, while 82% have not lost income due to temporary layoffs or delayed payments over the past year. The median duration for being out of work was 14–26 weeks, while the average duration for those not being paid was 1–6 weeks. Even, though a majority was receiving salary or benefits most of the time, two-thirds of households claim that they do not receive enough to live from their normal salary. Nevertheless, 80% say that they are getting enough to cope or to meet their current economic needs through the year. It was intriguing that more of the unemployed (83%) claim to be getting enough to cope than the employed (78%). However, this did fit with the household categorization where the enterprising households were actually more

⁵This section relies largely on Richard Rose's talk and paper, "Employment and Unemployment in Russian Households: A Multidimensional Approach".

likely to be found in the category of unemployed. People are reducing spending by not visiting the cinema or theater (44%), doing without household repairs (23%), not buying newspapers (20%), or not buying fuel for their car (11%).

One attendee gave examples from Latin America which resembled the Russian case. In Latin America in the 1980s individuals, often with no unemployment insurance, survived through a combination of networks and informal market arrangements. This was even more possible since much of the economy is informal. In the case of the Peruvian economy, the informal economy produces 75% of the total economic activity. In the discussion a positive view expressed that these kinds of informal activities can give impulse to the newly growing private sector. For example, doing laundry for a neighbor can lead to labor division and building of markets from the ground up. A more negative view expressed that garden farming and other labor intensive non-specialized survival techniques are anti-modernizing and are like going back to the 18th century with chicken and potato farming. The key goal, from this standpoint, is to get these survival strategies to an official level, otherwise they will never be able to become efficient.

3.4 The Peculiarities of the Behavior of Russian Enterprises in the Labor Market⁶

This session began with an assessment of labor utilization and flows in Russia. There are still massive pockets of labor which are greatly different. A full 15% of enterprises have a labor utilization rate of under 50%. Each firm could hypothetically reduce its labor by one-third with no output drop. Despite this finding, 20-25% of firms claim to have insufficient labor, 20-25% have labor redundancy, while the rest of the firms report appropriate amounts. To many at the seminar, this was quite a surprise and implied that at the aggregate level employment levels may actually be in equilibrium. Another attendee suggested that these statistics looks normal as Russian firms have two sets of workers: new, appropriately skilled people paid well to function, and the leftover people retained for other reasons. Therefore, firms may claim to have insufficient labor when they also have redundant labor. In total, hiring and separation in Russian firms remain at about 25% per year.

The session then explored the purpose and role of management in firms to shed light on labor hoarding. One theory suggests that management has been overly optimistic, each year assuming that the enterprise would perform better than it actually did. Consequently, labor is retained in expectation of future firm success. This theory was heavily disputed based on surveys displaying gross manager pessimism. Enterprise goals were then assessed. The assumption in the West is that firms aim foremost to maximize profits. But for Russian firms, other goals may take precedence. Firm size remains an important source of power and image for managers, a legacy from the communist era. Still, this can lead to an interest in maximizing workers as much as profits. Simple firm survival has in recent years been of greater importance than profits. To a certain extent, a large firm is more likely to be considered for continued subsidies which might allow for survival. During economic transformation, finding new markets, attaining inter-firm loans, bank credits and subsidies have become greater issues than worrying about redundant labor. With the fall of real wages, the labor costs of redundant labor are less and thereby the importance for managers of redundancy has been pushed to the back burner.

⁶The following section is based in part on the paper by Rostislav I. Kapeliushnikov and Serguei P. Aukutsionek, "The Russian Enterprises' Behavior in the Labor Market: Some Empirical Evidence".

Another theory is that managers no longer have the power to initiate large labor turnover. This view met with strong disagreement; most seminar attendees were convinced that managers still have the power to hire and fire. A reason less disputed has been the legacy of paternalism amongst management. The combination of these unique facets of Russian management with Russian labor's willingness to accept wage cuts has facilitated low unemployment.

The matter of how much output has truly fallen resurfaced regarding its relation to employment. First, it was suggested that many firms have an incentive to sell their product through the back door. And second, consumption is now at its pre-reform levels implying that maybe a large drop in unemployment will not be necessary. There was alarm that a 12% or so unemployment rate may be politically acceptable now in the West, but not in Russia.

3.5 Foreigners and Refugees in the Labor Market⁷

The discussion of foreigners and refugee movements contained an analysis of the size of, the reasons for, and the potential problems surrounding refugee movement. It concluded with a look to the future. An agency on refugees which began just two years ago officially estimates that 600,000 refugees have come to Russia in these two years, but more likely the number is around two million. Highest movements have been out of the Central Asian Republics. So much that in these Republics, the job vacancy rates are typically twice as high as the unemployment rates. Russia, as the recipient of the refugees, has more unemployment than vacancies. There are some areas within Russia where the concentration of refugees is as high as 30%.

The primary reasons for movement can be found in three categories: economic reasons (wages or employment), environmental reasons, and WWII forced refugees returning home. Though, economic reasons are the most important reason for migrating. There are areas in the Asian Republics where only 40% of adults have jobs. Because of this, moving to Southern Russia where there is still some agricultural and construction demand is advantageous. There are several problems arising around refugee movements. There is a potential for more tension arising around intensive job competition where there are large numbers of new refugees. It is believed that in the next few years, Russia will need to create an additional 3–4 million jobs to employ refugees returning from Asia. Another tension arises around citizenship issues especially in the Baltic Republics. There are a total of 1.5 million Russians in the Baltics; many want to remain as Russians but in the Baltics. For example, only 5% of Russians in Estonia want Russian citizenship, 90% want Estonian, but they want to keep their Russian identity.

There was debate over the gravity of migration of two million to a country of Russia's size. The example of Austria was brought up where 5% of workers are foreign, with little problem. And these are Bosnians coming to Vienna, not Russians to Russia. There was also a suggestion that the definition of Russian migrant or refugee become better defined, i.e., political versus economic. It was also suggested that the movement of Germans back to Germany after WWII could hold valuable political and economic lessons for Russia. A final recommendation was to improve on measurement as there are many illegal and guest workers who are not registered and not captured by most statistics. As to the future, there remain 25 million Russians outside Russia's borders with 13 million thereof

⁷This section is based partially on Nina Vishnevskaya's paper, "Role of Foreigners and Refugees in Labor Markets".

in the Ukraine alone. Depending on multiple socio-economic factors, there could still be an enormous refugee push into Russia which warrants more research.

4 Employment Case Studies

4.1 Restructuring the Coal Industry and Unemployment⁸

The initial case study involved employment issues in the coal mines of Vorkuta, a city north of the Arctic Circle in the Russian Republic of Koma. General issues within the coal industry were discussed before detailing the Vorkuta situation. With structural changes in Russia away from heavy industry, the industries likely to grow fastest are not those supplying the heavy industries such as coal. Recent data have verified this theory as Russian coal production has been falling since the late 1980s and faster in the 1990s. Russia's coal output, once over 400 million tons, fell to 345 million tons by 1991. World Bank predictions of coal demand suggest that coal production by the year 2000 would fall to just one-half of the 1990 level, only by 2010 perhaps recovering to 60% of that level. Though, predictions from the Russian Ministry are much less pessimistic forecasting that production could return to the 1990 levels. At the conference, the World Bank analysis was believed to have greater likelihood of corresponding to future realities.

With this background, it is evident that changes will and must occur within the Russian coal industry. Coal prices were freed in July 1993, somewhat later than other price liberalizations. Prices are still not exactly free as liberalization was done in relation to subsidies, as plants which were not able to earn as much due to lower coal prices received greater subsidies. Subsidies were always and continue to be extremely high within the coal industry. In order to understand the multiple employment effects of demand reduction, a worse case scenario of the isolated, one industry town of Vorkuta was selected for a case study examination.

Vorkuta is a town of 210,000, north of the Urals, and part of the Pechora coal field, Russia's third largest. In 1992, the 12 mines, owned by the local coal industry association Vorkuta Ugol (VU), produced a total of 16 million tons of coal. Vorkuta produces a high quality coal, and unlike the recent national trend, coal production at Vorkuta increased until 1992, only beginning to decline in 1993. Nevertheless, declining demand is expected in the future for this type of high quality, deep mined coal. Vorkuta will face the problems of a shrinking one industry town as much of the economic life of this 210,000 person town is supported by the coal industry, which in turn is supported by government subsidies.

There are a variety of improvements that could be made regardless of national or international conditions. The Coal Association has behaved to maintain employment rather than increase profits. This management technique may result from pressures to retain employment in a one industry town or because greater employment can imply greater subsidies for coming years. Even between the 12 VU mines, production is not concentrated in the most efficient mines. Hence, there has been substantial labor hoarding. To exemplify the extraordinary inefficiency of these mines, a comparison was made to the U.S. coal mining industry. Productivity in the U.S. averaged 4,296 tons per worker in 1970 increasing to 7,880 tons per worker by 1991. While in Vorkuta, productivity is a mere 530 tons per worker. The greatest force driving the productivity increases in the U.S. were old, less efficient mines closing with newer more efficient surface mines then

⁸This section is based largely on the presentation and paper by Paul Hare, "Restructuring the Coal Industry in Russia: Subsidies and the Social Safety Net".

increasing their share. Closing the less efficient plants, within such deep mine locations as Vorkuta, must become an important aspect of coal mine restructuring.

The next aspect of the session dealt with what has and what can be done to handle employment dislocation. First, the Coal Association does have a closure program as they are planning to close two mines. But they have the assumption that with these closings, either new mines will be opened or workers will be transferred. Very few in Vorkuta, with the exception of the trade unions, thought that demand would actually go down and that permanent unemployment can become a reality. If major closings were to occur at Vorkuta, attracting substantial new business to a remote location is next to impossible. The movement and retraining of mass population would be a gigantic problem. The issue of finding housing for people in other places would also be a major stumbling block to population movement.

In the absence of outright closing, the discussion moved to the constraints on increasing efficiency. It began with a discussion of the high transportation costs from Vorkuta due to its remote location. It is not easy to improve this drag on efficiency. Housing and other social services could be improved as they are now provided rather inefficiently by the enterprise. It was suggested that some of these costs, especially for new private firms, should be financed in part by individual workers as well as by the Russian government.

Closing decisions must be under the consideration that mine closings are permanent. The English case was brought up as a lesson in closing mines too fast when there were temporarily cheaper alternative sources of energy. The English could not easily return to coal when oil prices rose. At this point, a suggestion was made that Russia should perhaps attempt to use more coal domestically, despite its lack of international competitiveness, in order to free up more oil and gas products to export to the world.

Tremendously important in closings will be the political factors. Coal miners are an extremely important and powerful source of lobbying. As one participant suggested, "Coal miners have brought countries down in the past". With any closing, political feasibility must be carefully appraised. Because of this political danger, diversification of coal supply may be of value for Russia beyond any static price considerations.

4.2 Conversion of Military Production in Small Isolated Towns⁹

This session began with debate over the amount of employment in military production, followed by a discussion of some characteristics of the military and some future possibilities. The discussion then moved to a debate over the effects and possible solutions of worker dislocation and then of firm level closings in Russia's military-industrial sector.

There is some debate over the size of employment in Russia's military production. Official estimates suggest that 6 million Russians are employed in a total of 1,700 military enterprises. Although almost 40% of the 20 million Russians employed in industry, they reportedly produce just 8% of the output. If subcontractors and other multiple use parts and products were included in employment, then 12 million would be employed in the sector and when dependent family members are included then 36 million people are directly affected by military production changes. However, these official statistics were discounted as having too great an upward bias. A more reasonable guess is that at the beginning of 1994, 3.5 million were employed in this sector, less than 15% of industrial

⁹This section references Ksenia Gonchar's paper "Employment Aspects of Defense Conversion in Russia".

employment and less than 3.3% of the economically active population. Though, the employment has fallen from a level of 4.5 million in 1992, over a 20% reduction.

Several characteristics of enterprises and employees in military production were addressed. The enterprises have faced soft budget constraints as well as subsidies for wages. The military lobby in Moscow is powerful and perhaps the best organized. In recent years there has been much civilian production of military goods. One estimate was that only one-third of the defense industry remains in military production. There are also certain parts of the sector which are quite isolated geographically. Like in most of Russian industry, a large gap grew between the fall in output levels relative to falls in employment, though this gap is reportedly narrowing. Regarding employees, it was stressed that they are high skill relative to the average Russian workers, but vulnerable due to the excess employment relative to output.

In the past two years, over one million workers have become unemployed and it is expected that a second million will soon become redundant. Many of the first million simply left as defense wages were only 2/3 of other industry. These people have had little trouble becoming re-employed. If anything, the problems have arrived for the enterprises who have lost valuable craftsmen. There has been a bias against some higher skilled workers, especially the engineering economists. Their unemployment sparked a rousing debate. One attendee suggested that this group of engineers by training are mainly women and really work as accountants not engineers. Hence, all they know is communist style accounting. As to more recent unemployment and the second million expected to lose their jobs, re-employment will be more difficult. It was stressed that what these workers will need more than retraining to get information, enhance worker mobility and job search skills. Skills training will be important, but will be impossible for many and slow, so the ability to find new work with given skills often will be necessary. For this task, better coordination between state and local government agencies with firms must improve. Furthermore, active labor market strategies must be used. By far the greatest re-employment problems will be in the isolated towns and the all-science cities.

The current plan is to close 800 military-industrial enterprises. The claim that the military lobby would accept this large scale closure surprised many at the seminar. But there was a persuasive reason offered: that the closures should free up more money for other parts of the military. And actually, many of these inefficient production houses have become a burden for the military. In general, the adjustment pattern should be similar to other firms. It is intriguing that the seminar attendee who suggested the lack of political problems, on several occasions emphasized that these changes must be called restructuring and not conversion.

The question of shifting further to civilian production and the possibility of current civilian production reaching world competitive prices was discussed. Most at the seminar lacked in optimism. Although many military produced civilian products have Western quality, they are too often ugly, clumsy, and expensive. The U.S. example of civilian restructuring was brought up for comparison. In the U.S. case, much of the military complex had no trouble converting to civilian production, but only a few were able to reach cost competitive levels with the private sector during peace time. To end on a positive note, the restructuring and decline which did occur after WWII, although not great for the defense industry, was great for the American economy.

4.3 Unemployment Among Scientists, Engineers and the Brain-Drain¹⁰

The burning questions of this session revolved around three concepts. First, what types of brain drain are relevant in Russia, and how many scientists as well as which ones have left. Second, can or should the brain drain be slowed and if so how? And finally, what kind of R&D future does Russia need, phrased differently: how great of costs should Russia be willing to bear to retain their R&D establishment?

Brain drain was divided into several types. The first kind was the migration of scientists abroad. This kind of brain drain has totalled 0.3% of all scientists, but the effects could still be great depending on which scientists leave. If the best scientists and those who run laboratories depart, than entire schools could disintegrate. A second type of brain drain was called internal brain drain. This type was defined by scientists being paid by outside funds to work on projects without any domestic applicability. This kind of brain drain was seen as very typical in developing countries and is rapidly increasing in Russia. Many at the seminar disputed whether this sort of work is a brain drain, and many thought this process is not what is typically called internal brain drain. Rather, the third type of brain drain when scientists begin to work in non-science areas, is what is normally referred to as internal brain drain.

How many scientists have left through brain drain is quite uncertain as many scientists remain employed as scientists in Russia while no longer working in research. Because of this uncertainty, there are large discrepancies in estimates of the amount of this drain. For example, outside estimates are generally three times higher than those of the Russian Academy. But all agreed that all varieties of brain drain are likely to increase. As to who leaves, some at the seminar were convinced that the cream was leaving. One attendee suggested that first class scientists in the West only want to work with first class scientists from Russia. Another stressed that his personal experience showed that 1/3 of all applications for two posts at a British University were Russian. So they needed only to consider the top Russians. Essentially, there is enough of scientist supply in the West, that there is only room for the best Russians. However, another view suggested that the young, bright scientists will work abroad but established scientists with laboratories have no reason to go abroad.

The discussion moved to a debate on what if anything could or should be done to prevent the brain drain. Or, as it was eloquently phrased at the seminar, "How best to turn brain drain into brain gain". All agreed that macroeconomic stability, more stable financing, and modernization of communications and infrastructure are crucial and useful for keeping a strong R&D base in Russia. This would both slow the outflow from science, and would maybe bring some of the best Russians back. In the experiences of Norway, Switzerland, and France with large scientists outflows, they do return home. However, it was warned that severe measures to keep scientists when they want to leave never work. This point was reinforced by a charming story of Bologna's severe attempts in the early Renaissance to keep their scientists at home. They attempted everything from economic and psychological disincentives to more direct laws forbidding scientists from leaving. But in the end, scientists found a way out when they wanted to leave.

Luckily for Russia, they have a tremendous number of scientists and there are only limited positions in the West. So demand will soon become a huge constraint on any external brain drain. Besides, there were many scientists within the Russian science

¹⁰Some of this section is based on Yevgeny Kuznetsov's presentation and paper, "Is Russia Becoming a Developing Country? Brain Drain and Allocation of Talent in the Post-Socialist Transition".

community who went into science for the economic and social benefits and others who are no longer really scientists. One estimate found that only 10% of Russians counted as scientists are actually active scientists. For these people, it might be better to work outside the science world. The West can certainly not be relied on to save Russia's science foundation. Besides the funding provided by George Soros, there has been a continued small amount of Western funds available for science in the East. In 1993, European Community related Western funds were only 21 million ECU in Russia and the other former Soviet Republics, while there were 750 million ECU worth of bids by former Soviet scientists for this funding. Another attendee stressed that a little over-shifting to work abroad is not terrible especially with modern e-mail communication with scientists back in Russia.

The session closed with debate on whether Russia needed its strong R&D status to successfully develop. The arguments stressing the importance of R&D for Russia were both of an economic as well as psychological nature. First, the science establishment is an enormous bank of human capital which with some thought and creativity could possibly be put to good use. Second, unlike small countries, Russia will likely need her own R&D in what will eventually become a large and diverse economy. Psychologically and therefore politically, it will be very difficult for Russia to lose her R&D prowess; in troubled times, it is something to be proud of. For the world's sake, it will be best not to lose the Russian science system for the valuable general knowledge and basic science. And finally, for teaching the young generation it would be useful to retain the scientists. For political reasons, it is also hard to cut the Academy of Sciences. In all, this view stressed that Russia needs a national science policy and cannot rely on the West.

Many of the arguments against needing a science establishment, if costly to keep, looked to examples abroad. The case of Japan's weak science in the 1950s relative to England's was used as an example where strong R&D was not necessary for success in the early stages of development. Other examples of countries, which are wealthy but have many of their exports in agricultural products, fuel and raw materials, such as Norway and Australia, were offered to show that technologically based manufacturing was not necessary for development. This view stressed that Russia should fundamentally be thought of as a developing country which just happens to have a big R&D endowment.

5 The Experience of East European Countries in Unemployment Concentrated to Regions or Sectors

This session examined some details of employment developments in some East European countries. The hope was to learn some valuable lessons in terms of which policies will be effective for Russian employment as reforms in Russia have come somewhat later. But more than this, to learn the political, economic, as well as possible social effects of different levels of unemployment as well as re-employment policies.

5.1 Bulgaria¹¹

The tone for the employment session on Bulgaria was set when it was stated that it was valuable to analyze both the good guys, the Czechs, as well as the bad guys of Eastern Europe, the Bulgarians, in order to draw implications for Russia. Much of the following analysis derived from a study of 30,000 persons in Bulgaria. It was emphasized that official statistics in Bulgaria are also poor, though perhaps not as poor as in Russia.

Output in 1993 was just 62% of output in 1989, while levels of employment in 1993 had only dropped to 66% of the 1989 levels. This lead one to the conclusion that there is some hidden unemployment in Bulgaria. This is worrisome as unemployment has already reached 17.0% officially, but estimated to truly be 21.4%. Because of the over-employment as well as Bulgaria's dim trade prospects in the near or medium-run, even relatively optimistic scenarios do not have Bulgaria's unemployment falling below 15% before the end of the decade. Because the flows into and out of unemployment are not extremely rapid, such high levels imply dangerously long unemployment duration. In fact, 40% are now looking for 11 months or more for finding work, while 14% are looking for 3 years or more, some look even longer in rural areas. Beyond the high levels, a lack of skills and especially mobility cause this length of duration.

The next part of the Bulgarian case study detailed the demographic and regional employment status. Rural unemployment at 26.3% is significantly higher than the urban level of 19.5%. In the capital of Sofia, unemployment is significantly lower, while in areas with lots of gypsies the rate runs to 60%. And dramatically, in a few towns unemployment has even reached 72%. There is no great difference between the sexes in unemployment. In terms of skills, the first waves of unemployment in 1992 were heavily high skilled. But since then, unemployment has become more low skilled and this trend is expected to continue. Unlike in Russia, a full 56% of the unemployment has been the result of layoffs, not voluntary leaving. The most severe effect from the rural as well as certain regional biases is that certain areas are depopulating. And at a national level, partly because of the high unemployment partly for ethnic reasons, one-half million out of a population of just 9 million have left Bulgaria. And indeed, much of the cream has left as 100,000 high skilled persons have migrated.

One person questioned what caused the high unemployment in Bulgaria when large privatization has yet to begin? But a different answer emphasized the incredible ties with Russia, 65% of trade in past, unstable monetary and fiscal policies, low investment, and difficulty breaking into European markets. Exports are now three times lower to Eastern Europe, 4.5 times lower to countries of the former Soviet Union but only about the same to Western Europe. No increase to the West was blamed on many Bulgarian exports being on the European Community's sensitive item list as well as the recent European recession.

Bulgaria has virtually no special programs to fight unemployment. And few trust the official employment offices especially in Sofia. Those who do find work tend to use informal networks. Some conclusions were that Bulgaria should be ready for long-term high unemployment. And Bulgaria needs macroeconomic reform as a necessary but not sufficient step to stop output decline.

¹¹Much of this section is based on Ivan Angelov's talk and paper, "Regional Dimensions of Unemployment: The Bulgarian Case".

5.2 Slovakia¹²

Much of the statistical basis for the discussion of Slovakian employment comes from the official registration of the unemployed. It was stated, though somewhat disputed, that this data does not differ greatly from the data of labor market surveys. Through early 1991, unemployment in Slovakia was almost non-existent. By the beginning of 1992, unemployment rose to levels of almost 13%. During 1992, unemployment dropped to slightly more than 10% due to either the success of the employment services program, the lowering of benefits for the unemployed, or due to a healthier labor market. However, during 1993, unemployment rate rose again to over 13%, remaining around this level until today. There is some current optimism in the Spring of 1994 as rates are beginning to abate.

There were employment reduction differences across some economic sectors and branches in 1993. Employment in total industry declined by 6.7%, in public enterprises by 10.5% and in total construction by 5%, while employment in private industry rose by 10% and private construction increased by 15%. And in the tertiary sphere, employment mainly increased as trade employment was up 20.4%, finance and insurance 27.1%. And finally, employment in large firms decreased by 7.7%, while small firm employment more than doubled. In terms of duration, the amount of long-term unemployment (12 months or more) was 32.2% in 1993, actually lower than the 36.3% in 1992. Nonetheless, since the short-term unemployment (less than 3 months) also declined between 1992 and 1993 from 30.2% to 26%, the average duration of unemployment was similar. The groups with the greatest concentration of unemployment were the manual workers at 44.6% of the total unemployment and correspondingly the lower education Slovaks at 54.7% of the total. It is worrisome that 57.9% of the unemployed came from those between the ages of 20 and 39 as they should be in their prime working years.

Regionally, Eastern Slovakia was hit hardest, although Southern Slovakia also has higher than average unemployment levels. The highest unemployment levels in the East were in towns with a high gypsy concentration, while Bratislava has the lowest unemployment. In aggregate, the number of applicants per vacancy has lowered. But it is evident that the growth of vacancies is the force lowering the applicants per vacancy ratio. The Beveridge curve indicates that the Slovakian labor market is in considerable disequilibrium and that structural or frictional unemployment is minimal. Hence, increasing regional or occupational mobility would not do much to lower unemployment.

The unemployment situation may be starting to look brighter in early 1994. In U.S. dollars a total of \$31.62 per head was spent on labor market policies in 1993, with \$6.29 for active policies and \$10.56 for passive labor market policies per head. Most of the \$15 per head rest was spent on social assistance. It was emphasized that more active labor market policies are needed, especially where the unemployment is high. The problem in some high unemployment areas is that the gypsies will not use the programs. It was highlighted that the public works programs have been especially successful. Although, another attendee warned that those on public works still count as unemployed. Others at the seminar disputed the value of labor market policies in easing unemployment. They stressed that earlier lowering of unemployment were caused by greatly reducing benefits, and future employment increases must come through a stronger economy. A final interesting program at the labor level has been to give entrepreneurs the benefit of being tax free; this policy is now followed in eleven regions.

¹²Much of this section is based on the paper by Jana Kohutova and Pavel Ochotnický, "Regional Unemployment and Employment Policy in Slovakia".

5.3 Czech Republic¹³

Unemployment was first a factor in Czechoslovakia at the beginning of 1990 with the Czech half as well as the Slovak recording rates of about 0.1%. Since then the Czech Republic consistently had lower levels. Unemployment reached 4.4% in January 1992. It has since fallen, and from the middle of 1992 until the end of 1993, unemployment ranged between 2.5% and 3.5%. It is interesting to note that in the Czech Republic the pattern of unemployment has been similar to Slovakia's, only four times lower and with a growing gap. The Czech Republic is unquestionably the outlier of Eastern Europe with unemployment levels remaining far below even the OECD average. Regionally, North Moravia has the highest unemployment levels at 5.9% at the end of 1993, while Prague has the lowest levels at 0.3%. Despite lower overall unemployment, there is actually more variation in unemployment across regions in the Czech Republic than in Slovakia.

A study was then presented on the causes of unemployment. The basic model used was an inflow-outflow model testing first demand side factors such as overall growth and the structure of demand; then structural factors such as education, urban areas, relevance of the Sudeten Land, and distance from the Western border; and third, the relevance of active and passive labor market policies. The first finding was that the inflows to unemployment were somewhat lower in the Czech Republic than in Slovakia, but with more variation. Industry structure and output were not significant on inflows. The explanation given was that often there is lots of new growth in an area with lots of turnover. It was found that unemployment increased with distance from the German border. Towns also had lower inflows. In the Sudeten Land, the inflows were 30% lower than elsewhere.

But the key factor to understanding the low unemployment in the Czech Republic was the enormous outflow rate from unemployment. The turnover is high enough that one-half of all Czech unemployed leave each month. The demand factors were by far the most important in this large outflow. Education level also played an important role, though distance from the border as well as Sudeten land factors did not matter for outflows. And finally, in opposition to the earlier discussion on Slovakia, the amount of funds spent on labor market policies were not a significant predictor of outflows. So, in summary location for inflows and demand conditions for outflows were the most important factors explaining Czech unemployment.

At this point, there was some lively debate on the Czech unemployment. One attendee suggested that this kind of model misses the root reasons for Czech-Slovak unemployment differences which may be psychological. Survey data were recollected that Slovaks are less likely to move for work, and Czechs have a higher propensity to make an effort to work. Another attendee suggested that the outflow of surplus Czech labor to Germany must be a factor and also the different histories, industrial structures and trade linkages must be considered.

6 Future Prospects of Employment: A Summary

The final section assessed a few of the findings from the seminar while also attempting through the use of some standard economic techniques to make comparisons to other nations, present and past. And to conclude, there was an assessment of prospects for the future as well as progress made until now in shaping employment issues in Russia.

¹³Large parts of this section are based on the discussion and paper by Jan Svejnar and Katherine Terrell, "Explaining Unemployment Dynamics in the Czech and Slovak Republics".

Some of the patterns or regularities as well as some major surprises were initially discussed. First, all the countries had substantial output drops. Nobody predicted such large drops as many had pointed to the German experience of 1948 without a great drop. Second, all countries have had less employment reduction than output. To analyze this relationship, Okun's law coefficients were used which compare the % change in GDP to % change in unemployment, or given an output drop what will be the response of employment. The Okun's coefficient was shown for Poland to be 2, for Hungary 2, for Slovakia 2, for the U.S.A. 2.5, for Bulgaria 3-4, for Romania 3-4, for the Czech Republic 5, for Russia 8, and for Japan 8-10. Russia then has actually been following a pattern similar to Japan in regards to labor retention during output downturns. The Japanese wage structure enhances this practice since workers receive 25% of their average salary in annual bonuses. Will this pattern continue for Russia? Can Russia then end up with a system more like 19th century capitalism where wages change more than employment? Essentially is Russia really a flex-wage economy or is low unemployment mainly due to labor hoarding and the "other shoe" is soon to drop? The ratio of wage variation to employment variation across regions is 2 in Russia, while it is only 0.2 between states in the U.S. and only 0.4 between German Länder.

The excess wages tax is persuasive on analytical grounds in keeping down unemployment. Perhaps, it really has been an ingenious mistake created to keep inflation and high wages down, since it has turned out to be great in keeping employment up. An analogy was made to the history of the Gold Standard. We only have the Gold Standard today as Isaac Newton in England accidentally undervalued silver forcing everybody to hold gold. The other major reason for low unemployment is simply wage flexibility. It is hard to believe that labor markets are really clearing. But still the Business Barometer data did show that the managers of medium size firms believed that they had the right amount of labor; this is a sign that Russia is not in a typical depression.

What must occur is a huge job reshuffle. This is always difficult, even for the young. But because of the transition, Russians in their 30s and 40s must do it. It is not so much the firm-to-firm movement that is tough but rather the occupation-to-occupation that is difficult for individuals. Some years ago one prominent Czech economist predicted that if all people in Czechoslovakia were tossed in the air with the hypothesis that they would all land in an appropriate job for them, based on what will exist, only 15% would end up in their current place of employment. Despite the need for a similar huge turnover the attitude may not be appropriate as 75% of Russians in one survey do not believe that they would have to change their job in the near future.

Although there are still many data problems, this seminar showed that officials and scientists are now attempting to find alternatives to official sources of data and doing sound normal science with the data. More questions than answers remained as the workshop came to an end. Some included: Will, and if so, when will the expected growth of unemployment occur? Will it really cause a social explosion if it does come? Is the higher employment levels caused by excess wages tax a positive or negative step for Russia? How much has high inflation been the cause of Russian flexible wages? In all, piece by piece, the micro-details must be filled in to get a true understanding of what is going on in Russia.

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APPENDIX 1

PROGRAM OF THE WORKSHOP ON Employment and Unemployment in Russia from a Microeconomic Perspective IIASA, 23–25 June 1994

Thursday, 23 June

14:00 OPENING REMARKS

- Peter E. de János, Director of IIASA
- Merton J. Peck, Leader, Economic Transition and Integration Project

14:15 SESSION I: Recent Developments in Employment and Unemployment — *Chair: János Gács*

1. GENERAL ISSUES IN EMPLOYMENT AND UNEMPLOYMENT
Lioudmila Nemova
2. OPTIONS FOR EMPLOYMENT POLICY
Molly Meacher
Discussant: John S. Earle

16:30 3. SECTORAL DISPARITIES IN THE USE OF LABOR Felix Bourdjalov — *Discussant: Merton J. Peck*

Friday, 24 June

08:45 SESSION II: Adjustments in the Use of Labor — *Chair: Paul Hare*

1. ALTERNATIVES TO FULL-TIME EMPLOYMENT—INCENTIVES, ADVANTAGES
AND DISADVANTAGES
Judith Shapiro and Ian Roxburgh — *Discussant: Lioudmila Nemova*
2. EMPLOYMENT AND UNEMPLOYMENT IN RUSSIAN HOUSEHOLDS:
A MULTI-DIMENSIONAL APPROACH
Richard Rose — *Discussant: Yevgeny Kuznetsov*
- 10:30 3. THE PECULIARITIES OF THE BEHAVIOR OF RUSSIAN ENTERPRISES IN THE
LABOR MARKET: SOME EMPIRICAL EVIDENCE
Rostislav Kapeliushnikov — *Discussant: Molly Meacher*
4. ROLE OF FOREIGNERS AND REFUGEES IN LABOR MARKETS
Nina Vishnevskaya — *Discussant: Andreas Wörgötter*

13:30 SESSION III: Case Studies — *Chair:* William Nordhaus

1. RESTRUCTURING THE COAL INDUSTRY AND UNEMPLOYMENT

Paul Hare — *Discussant:* Merton J. Peck

2. CONVERSION OF MILITARY PRODUCTION IN SMALL ISOLATED TOWNS

Ksenia Gonchar — *Discussant:* Slavo Radosevic

16:00 3. UNEMPLOYMENT AMONG SCIENTISTS, ENGINEERS AND THE BRAIN-DRAIN
Yevgeny Kuznetsov — *Discussant:* Ian Roxburgh

Saturday, 25 June

**08:45 SESSION IV: The Experience of East European Countries in
Unemployment Concentrated to Regions or Sectors**
***Chair:* Slavo Radosevic**

1. SLOVAKIA: Jana Kohútová and Pavel Ochotnický

2. BULGARIA: Ivan Angelov

3. CZECH REPUBLIC: Katherine Terrell

10:30 SESSION V: Future Prospects of Employment — *Chair:* János Gács

Judith Shapiro

William Nordhaus

12:00 End of Workshop

APPENDIX 2

LIST OF PARTICIPANTS FOR THE WORKSHOP ON

Employment and Unemployment in Russia from a Microeconomic Perspective

IIASA, 23–25 June 1994

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